



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 West 15th St, Suite 3200
HELENA, MONTANA 59626

Ref: 8MO

April 9, 2009

Mr. Malcolm Edwards, District Ranger
Canoe Gulch Ranger District
12557 Highway 37
Libby, Montana 59923

Re: CEQ # 20090059, EPA Comments on Miller
West Fisher Project DEIS

Dear Mr. Edwards:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Draft Environmental Impact Statement (DEIS) for the Kootenai National Forest's Miller West Fisher Project in accordance with EPA responsibilities under the National Environmental Policy Act (NEPA), 42 U.S.C. 4231 and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major Federal agency action. EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document.

The EPA supports conduct of vegetation management activities to reduce forest fire risks and restore historical vegetation species, stand structure, patch sizes, and declining species such as Ponderosa pine, western larch, and white pine, with project planning and design and mitigation measures that will allow the vegetation management to be carried out with minimal adverse environmental effects. We encourage inclusion of features that reduce adverse effects to watersheds and that promote watershed restoration such as: minimization of new road construction; siting of needed roads away from streams, with minimal road stream crossings; and improvement in erosion control and drainage on existing roads with implementation of road BMP improvements; as well as road decommissioning/storage that improve watershed conditions, reduce open road density and improve wildlife security and connectivity. In addition, we encourage use of less ground disturbing logging methods as much as possible during vegetation management (e.g., skyline, helicopter, and logging during winter on snow or frozen ground).

We are pleased that the preferred alternative, Alternative 6, appears in general to be consistent with these types of recommendations. Alternative 6 includes more watershed restoration activities than other alternatives; proposing long-term storage on 15.0 miles of road;

decommissioning of 1.43 miles of road; restoring 19 stream crossings; road reconstruction and BMP implementation on 38.99 miles of road; road restrictions on 1.92 miles of open road; pool creation in Miller Creek; bank stabilization on West Fisher Creek; wetland restoration at Standard Lake; Teeter Peak road stabilization, and proposes no new permanent roads.

We note, however, that Alternative 6 does include the highest level of new temporary road construction among the action alternatives (3.29 miles vs. 0.94 miles in Alternatives 4 and 7 and 1.2 miles in Alternative 2), and would result in slightly higher open road density and total road density than other alternatives, and includes the lowest security habitat during the project. While we support Alternative 6 over other action alternatives, we do encourage the Kootenai National Forest to consider making some revisions to Alternative 6 to reduce open road density and total road density and increase security habitat in order to increase watershed protection and wildlife security and connectivity. Reductions in road density, especially road stream crossing density and riparian road density, are often correlated with improved aquatic health, as well as improved wildlife security and connectivity. We also note that there is also often a relationship between higher road density and increased forest use and increased human caused fire occurrences. Reduction in road density, therefore, may also reduce risks of human caused fires, which could be important in an area with high fuels/fire risk.

We are pleased that soil and water conservation practices (BMPs) will be used for controlling non-point pollution sources; meeting soil and water quality goals; and protecting beneficial uses. Use of appropriate BMPs, management requirements and design criteria, and adherence to INFISH Standards and Guidelines within Riparian Habitat Conservation Areas (RHCAs) should minimize adverse effects to water quality or beneficial uses.

We have some concern that it is estimated that Alternative 6 will result in a 13.9% water yield increase in the Miller Creek watershed, and the DEIS indicates that the majority of the channel types in Miller Creek are very sensitive to increases in peak flow levels. While the estimated 13.9% water yield increase in the Miller Creek drainage is below the Forest Plan maximum allowable water yield increase of 15%, it is not clear to us if the “one size fits all” 15% Forest Plan standard provides adequate protection in channel types like Miller Creek that are very sensitive to increases in peak flows. We believe the potential for degradation of Miller Creek with water yield increases of 13.9% with the preferred alternative should be further evaluated and described in the FEIS. We note that Miller Creek has a pure westslope cutthroat trout population that may be impacted with channel instability.


We would be very concerned about selection of Alternative 2 as the preferred alternative, since it is estimated the water yield increase in Miller Creek would be 15.9% with Alternative 2, exceeding the 15% Forest Plan Standard. The DEIS states that a water yield increases in this range would result in a degraded condition that would have impacts on the downstream water quality impaired segment of the Fisher River. This would be inconsistent with EPA’s policy that further degradation of water quality impaired streams should be avoided. We are pleased that the DEIS acknowledges that Alternative 2 is inconsistent with Forest Plan standards for protection of streams and water quality, and is not recommended as the preferred alternative.

A TMDL is required for the Fisher River, which as noted above is listed by the State of Montana under Section 303(d) of the Clean Water Act as water quality impaired. It is important that the proposed Miller West Fisher project be consistent with the TMDL and Water Quality Plans being prepared by the Montana DEQ for the Fisher River watershed. The Kootenai National Forest should coordinate their proposed activities in the Fisher River watershed with Montana DEQ TMDL program staff to assure consistency of proposed activities with the State's TMDL development (contact Mr. Robert Ray of MDEQ at 406-444-5319). We support the general watershed objectives that are shown in the DEIS to: 1) maintain/improve water quality, 2) minimize erosion, sedimentation, and soil compaction, 3) maintain/improve the integrity of riparian zones and wetlands, 4) identify and correct all existing unnatural sources of sediment.

The EPA's further discussion and more detailed questions, comments, and concerns regarding the analysis, documentation, or potential environmental impacts of the Miller West Fisher Project DEIS are included in the enclosure with this letter. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). A copy of EPA's rating criteria is attached. We recommend additional analysis and information to fully assess and mitigate all potential impacts of the management actions.

The EPA appreciates the opportunity to review and comment on the DEIS, and the opportunity to review the proposed project in the field. If we may provide further explanation of our comments please contact Mr. Steve Potts of my staff in Helena at 406-457-5022 or in Missoula at 406-329-3313 or via e-mail at potts.stephen@epa.gov. Thank you for your consideration.

Sincerely,


John F. Wardell *FOR*
Director
Montana Office

Enclosures

cc: Larry Svoboda/Connie Collins, EPA 8EPR-N, Denver
Dean Yashan/Mark Kelley, MDEQ, Helena

EPA COMMENTS ON THE MILLER WEST FISHER PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT

Brief Project Overview:

The Kootenai National Forest (KNF), Canoe Gulch Ranger District, developed the Miller West Fisher Project EIS to evaluate alternatives and disclose environmental impacts of proposed management activities in the drainages of Miller Creek, West Fisher Creek, and Silver Butte Fisher River. The project purpose and need is to maintain the vigor and productivity of forest stands; reduce hazardous fuels and restore natural fire regimes; provide forest products; reduce impacts of roads on water quality and wildlife, while providing access; maintain/improve watershed condition as well as grizzly bear and big game habitat; and improve recreation experience through trail reconstruction and hazard reduction in Lake Creek Campground. The project area is located approximately 25 air miles south southeast of Libby, Montana, and occupies approximately 69,419 acres, including 60,519 acres (87%) of National Forest System (NFS) lands, 2,064 acres of Plum Creek Timber Company (PCTC), 640 acres of State of Montana School Trust lands, and 2,064 of other private lands. Five alternatives were evaluated in detail in the DEIS.

Alternative 1 is the No Action alternative, which provides a baseline for comparison of the environmental effects of the other alternatives.

Alternative 2 is the proposed action designed to address the purpose and need, and includes commercial timber harvest on 2,492 acres; pre-commercial thinning on approximately 351 acres; prescribed burning on 3,175 acres; construction of 1.2 miles of temporary road; road reconstruction and BMP implementation on 42.72 miles of road; road restrictions on 7.47 miles of open road; long-term road storage on 11.36 miles of road; restoring 12 stream crossings; reconstruction of 5.5 miles of trail; and fuels reduction and hazard tree removal in Lake Creek Campground.

Alternative 4 is designed to address many of the issues raised with the proposed action during scoping, including economic feasibility, reduced levels of timber harvest in Miller Creek to address watershed health and elk security, closure of road 594 to snowmobile use due to concerns about trespass of motorized use into wilderness occurring from this road, and retention of some open roads for OHV and other motorized use. It also includes permitting motorized access to private property is known as the Irish Boy Mine. Alternative 4 includes commercial timber harvest on 1,364 acres; pre-commercial thinning on approximately 351 acres; prescribed burning on 2,830 acres; construction of 0.94 miles of temporary road; road reconstruction and BMP implementation on 30.45 miles of road; road restrictions on 1.92 miles of open road; long-term road storage on 5.17 miles of road; decommissioning of 1.43 miles of road, including restoring 12 stream crossings; reconstruction of 5.9 miles of trail; parking improvements at 15 trailheads; fuels reduction and hazard tree removal in Lake Creek Campground, and construction of stock corrals outside of the Campground; pool creation and bank stabilization in Miller and West Fisher Creeks; private access to the Irish Boy property.

Alternative 6, the preferred alternative, is designed to respond to potential changes in cumulative effects due to the Montanore Mine (i.e., different mine power line routes cross the project area in different locations, having substantially different impacts to project area resources).

Alternatives 2 and 4 consider Montanore's proposed action power line in the North Fork of Miller Creek for cumulative effects analysis. Alternative 6 considers the West Fisher power line route for cumulative effects. Alternative 6 includes commercial timber harvest on 1,898 acres; pre-commercial thinning on approximately 351 acres; prescribed burning on 2,830 acres; construction of 3.29 miles of temporary road; road reconstruction and BMP implementation on 38.99 miles of road; road restrictions on 1.92 miles of open road; long-term road storage on 15.0 miles of road; decommissioning of 1.43 miles of road, including restoring 19 stream crossings; reconstruction of 5.9 miles of trail; parking improvements at 15 trailheads; fuels reduction and hazard tree removal in Lake Creek Campground, and construction of stock corrals outside of the Campground; and pool creation and bank stabilization in Miller and West Fisher Creeks.

Alternative 7 was developed to avoid the need for any Forest Plan amendments. All other action alternatives require an amendment for increasing open road density (ORD) for big game summer range (MA 12) above the existing condition, which exceeds the Forest Plan standard of 0.75 miles per square mile. This alternative is the same as Alternative 4, with certain units switched to winter logging.

Comments:

1. The project summary includes a description of land ownership in the project area that appears to include some inconsistencies (page S-1). It states that the project area is approximately 69,419 acres in size and disaggregates the acreage among: National Forest System lands (60,519 acres, 87%); Plum Creek Timber Company lands (2,064 acres, 32%); Montana School Trust lands (640 acres, less than 1%); and other private lands (2,064 acres, 3%). The disaggregated acreages and percentages do not appear to be consistent with the total acreage. The land ownership acreages in Table 3-1 (page 3-3) appear consistent. We suggest that the discussion of land ownership in the project summary be corrected in the FEIS.
2. We appreciate the inclusion of clear narrative discussions describing alternatives and the tables presenting important information and features of the alternatives, and tables comparing alternatives in Chapters 2 (Tables 2-1 to 2-22). We also appreciate the color foldout maps and figures in the Appendices, and other information in the Appendices regarding Watershed Forest Plan Standards and Guidelines, BMP Processes, Landtypes, RHCA Widths, Roads, Water Yield and Sediment Modeling, and Monitoring. The narrative, tables, maps, figures and Appendices facilitate improved project understanding, help define issues, and assist in evaluation of alternatives providing a clearer basis of choice among options for the decisionmaker and the public in accordance with the goals of NEPA.

We do suggest identification of all appendices in the Table of Contents. This would assist readers of the document in recognizing where relevant information could be found.

Alternatives

3. The EPA supports conduct of vegetation management activities that will reduce forest fire risks and restore historical vegetation species, stand structure, and patch sizes. We particularly support conduct of activities to restore declining species such as Ponderosa pine, western larch, and white pine. Vegetation management should be planned, designed and carried out to minimize adverse environmental effects, and include watershed restoration activities whenever possible. We support minimization of new road construction; siting of needed roads away from streams, with minimal road stream crossings; and improvement in drainage of existing roads and implementation of road BMP improvements, as well as road decommissioning/storage that improve watershed conditions, reduce open road density and improve wildlife security and connectivity.

Each of the action alternatives has certain advantages and disadvantages from an EPA perspective, although Alternatives 4, 6 and 7 appear to include more of the desirable features we favor than Alternative 2. Alternatives 4, 6, and 7 avoid new road construction, which we consider desirable since sediment from road construction as well as erosion of roads is often a major cause of adverse water quality impacts on forests. Alternatives 4, 6, and 7 also have higher levels of road decommissioning/storage and more stream crossing removals; and include stream bank stabilization, pool creation and wetland restoration. Alternative 6 includes the highest level of road decommissioning/storage, stream crossing removals and road BMP improvements and reconstruction, as well as Teeter Peak road stabilization.

However, Alternative 6 also includes the highest level of new temporary road construction (3.29 miles vs. 0.94 miles in Alternatives 4 and 7), and may have slightly less beneficial aspects to the threatened grizzly bear than some of the other alternatives (i.e., Alternative 6 includes the lowest security habitat during the project and highest open road density post project). Alternative 2 restricts more environmentally damaging motorized uses more than Alternatives 4, 6, and 7, but appears that it would result in degradation of Miller Creek due to high peak flows.

We very much support the higher levels of proposed road decommissioning and storage, stream crossing removals, and road BMP improvements, as well as stream bank stabilization, pool creation, wetland restoration, that are included in Alternative 6. We are pleased that the preferred alternative includes the most watershed restoration work, in terms of road storage and stream crossing removal, of all the alternatives (page 3-117). While we have some concern that the preferred alternative, Alternative 6, includes the highest amount of new temporary roads (3.29 miles vs. 0.94 miles in Alternatives 4 and 7); may result in high water yield increases in Miller Creek; includes slight increases in open road density and total road density; and includes the lowest security habitat during

the project (see comment # 24 below); we are pleased that there will be no new stream crossings with temporary roads, no new permanent roads, and Alternative 6 includes the most road decommissioning and road storage work of all the alternatives, as well as pool creation, streambank stabilization, wetland restoration, and Teeter Peak road stabilization.

We support Alternative 6 over other alternatives, but we also encourage the Kootenai National Forest to consider making some revisions to Alternative 6 to include additional restrictions on motorized travel and/or reductions in the amount of new temporary road to increase watershed and wildlife protection. reduce open road density and total road density in order to increase watershed protection and wildlife security and connectivity.

4. We appreciate the disclosure of information in the DEIS on proposed methods of harvesting or yarding trees (pages 2-19 to 2-22, and alternatives tables). For Alternative 2 it is stated that approximately 27% (678 acres) of the proposed harvest units would be harvested utilizing ground-based systems (tractor yarding); 43% (1,079 acres) with a helicopter due to steep slopes or lack of access roads; and 29% (735 acres) with a skyline system due to steep slopes. However, we did not see such logging method summaries presented for the other action alternatives. Such information may be calculated from the alternatives tables, however, it would be helpful to include similar summaries of proposed harvesting/yarding system information for Alternatives 4, 6, and 7, to facilitate comparisons with Alternative 2.

We encourage use of harvest/yarding methods that reduce ground disturbance and sediment production and transport risks when harvesting timber on erosive soils or steep slopes to reduce adverse effects to soil and water quality (e.g., skyline, helicopter, and logging during winter on snow or frozen ground).

Vegetation Treatments

5. The DEIS Chapter 3 discussion of forest vegetation provides valuable information regarding forest composition and structure, natural succession and disturbance ecology, insects and pathogens, fire ecology and fire regimes, fuels and fire risks. We support vegetative treatments to reduce fire risks, susceptibility to insect and disease agents, increase structural diversity and ecological integrity. We generally favor understory thinning from below, slashing and prescribed fire to address fuels build-up with reduced ecological impacts. We also favor retention of the larger more vigorous trees, particularly trees of desirable tree species whose overall composition is in decline (e.g., western larch, Ponderosa pine, western white pine, whitebark pine). The larger healthier trees are generally long-lived and fire resistant, and provide important wildlife habitat. Harvest of many live mature trees could potentially increase fire risk, as well as reduce wildlife habitat. If the forest canopy is opened too much by removal of large fire resistant trees it may promote more vigorous growth of underbrush and small diameter trees that would increase fuels and fire risk in subsequent years, contrary to the fire risk

reduction purpose and need.

We encourage the Kootenai National Forest to retain large healthy trees of desirable species whose overall composition is in decline during regeneration harvests. It would be helpful if the extent of proposed harvest of large trees of desired species in Miller West Fisher harvests were more clearly identified in the FEIS.

Water Resources, Fisheries

6. The DEIS discloses that the Fisher River, which is immediately downstream of proposed project activities, is included on Montana's Clean Water Act Section 303(d) list of water quality impaired waters, with only partial support of aquatic life and cold water fishery uses (page 3-103). The DEIS displays 2004 and earlier MDEQ water quality impairment information. More recent 2006 MDEQ water quality assessment information is available and we recommend that this more recent information be incorporated into the water quality discussion in the FEIS (see MDEQ water quality impairment listing website, <http://www.deq.state.mt.us/CWAIC/default.aspx>). The 2006 data for the Fisher River indicate that probable sources of impairment are channelization, grazing in riparian or shoreline zones, highway/road/bridge runoff and construction, silviculture activities, streambank modifications/destabilization; and probable causes of impairment identified high flow regimes and lead (with lead source unknown).

A TMDL is required for the Fisher River drainage, which includes much of the Miller West Fisher project area. It is important that the proposed Miller West Fisher project be consistent with the TMDL and Water Quality Plans being prepared by the MDEQ for the Fisher River watershed. The Kootenai National Forest should coordinate their proposed activities in the Fisher River watershed with Montana DEQ TMDL program staff to assure consistency of proposed activities with the State's TMDL development (contact Mr. Dean Yashan of MDEQ at 406-444-5317 or Mr. Robert Ray at 406-444-5319).

We support the general watershed objectives that are shown in the DEIS to: 1) maintain/improve water quality, 2) minimize erosion, sedimentation, and soil compaction, 3) maintain/improve the integrity of riparian zones and wetlands, 4) identify and correct all existing unnatural sources of sediment (page 3-107).

7. The DEIS reports that 50% of the riparian areas in the project areas have experienced some level of timber removal, with approximately 60% the tributaries having seen management activities. All of the project watersheds are considered to be functioning-at-risk (page 3-106). We are pleased that soil and water conservation practices (BMPs) will be used for controlling non-point pollution sources; meeting soil and water quality goals; and protecting beneficial uses (page 3-120). Use of appropriate BMPs, management requirements and design criteria, and adherence to INFISH Standards and Guidelines within Riparian Habitat Conservation Areas (RHCAs) should minimize adverse effects to water quality or beneficial uses.

We are pleased that 39 miles of road BMPs would be implemented with the preferred alternative. Road system improvement and proper road maintenance with BMP implementation is important, since erosion of poorly maintained roads with inadequate road drainage is a major cause of adverse water quality effects. EPA fully supports conduct of road maintenance and BMP and drainage improvements to forest roads, since these are critical to protecting aquatic health (e.g., installing and replacing culverts, installing drainage dips or surface water deflectors, armoring drainage structures, grading and replacement of aggregate to reinforce wet surface areas, ditch construction and cleaning).

We are also pleased that 1.43 miles of road will be decommissioned and 15 miles of road placed in storage with the preferred alternative. EPA supports road decommissioning and reductions in road density, since increasing road density, especially road stream crossing density, has been inversely correlated with aquatic health in many areas, and lower road densities are often associated with improved wildlife habitat and security. We also note that there is often a relationship between higher road density and increased forest use and increased human caused fire occurrences. Reduction in road density, therefore, may also reduce risks of human caused fires, which could be important in an area with high fuels/fire risk.

We are pleased that the preferred alternative includes the most watershed restoration work, in terms of road storage and stream crossing removal, of all the alternatives (page 3-117). We are also pleased that the DEIS indicates that road decommissioning and storage work in the area appears to be creating a trend of water quality improvement and decreasing stream sediments (page 3-104), and may be moving the Fisher River toward removal from the 303(d) list (page 3-107).

8. The DEIS mentions removal of 13 road stream crossings with proposed road work in Alternative 6 (page 3-118, 3-119), however, Table 2-22 (page 2-51) indicates that Alternative 6 would include 19 stream crossing restorations, which is reiterated in the narrative on page 3-172. Table 3-53 (page 3-170) shows 15 stream crossings restored with Alternative 6. The FEIS should explain and/or correct these inconsistencies.
9. The DEIS states that the Fisher RAP identified 14.2 miles of road work in the Silverfish Planning Subunit (project area), but due to existing grizzly bear core areas in Miller Creek, 2 miles of proposed work had to be dropped from this proposal, and that remaining work to be approved includes, 0.9 miles of road decommissioning and 11.3 miles of road that would be placed into "temporary stored service" (page 3-108). We are pleased that it is stated that the preferred alternative, Alternative 6 would allow the 2 miles of road storage work in the Miller Creek drainage (currently in grizzly bear core habitat) to be done along with 0.9 miles of road decommissioning.

We understand that 0.9 miles of the 11.3 miles of road to be placed into “intermittent stored service” would be completed through the timber sale, and that the remaining road storage work would be completed when funding was obtained (page 3-118). On page 3-119 it is stated that this remaining this road storage work would occur by 2011. We encourage the Forest Service to provide funding to complete this road storage work by 2011, and suggest that the discussion on page 3-118 clarify this as well.

10. We are also pleased that efforts appear to have been made to avoid construction of new permanent roads, although 3.29 miles of temporary road construction appear to be proposed with the preferred alternative (Table 2-22, page 2-51). We note that Table 3-83 (page 3-309) shows 1.89 miles of temporary road construction. The FEIS should explain and/or correct the inconsistencies in temporary road construction between Table 2-22 and Table 3-83.

11. We realize Kootenai NF staff are knowledgeable regarding road planning, design, construction and maintenance measures to minimize water quality effects, however, we still want to share some of our general recommendations regarding roads for your information. They are as follows:

- * minimize road construction and reduce road density as much as possible to reduce potential adverse effects to watersheds;
- * locate roads away from streams and riparian areas as much as possible;
- * locate roads away from steep slopes or erosive soils;
- * minimize the number of road stream crossings;
- * stabilize cut and fill slopes;
- * provide for adequate road drainage and control of surface erosion with measures such as adequate numbers of waterbars, maintaining crowns on roads, adequate numbers of rolling dips and ditch relief culverts to promote drainage off roads avoid drainage or along roads and avoid interception and routing sediment to streams;
- * consider road effects on stream structure and seasonal and spawning habitats;
- * allow for adequate large woody debris recruitment to streams and riparian buffers near streams;
- * properly size culverts to handle flood events, pass bedload and woody debris, and reduce potential for washout;
- * replace undersized culverts and adjust culverts which are not properly aligned or

which present fish passage problems and/or serve as barriers to fish migration;

- * use bridges or open bottom culverts that simulate stream grade and substrate and that provide adequate capacity for flood flows, bedload and woody debris where needed to minimize adverse fisheries effects of road stream crossings.

We also encourage conduct of inspections and evaluations to identify conditions on roads and other anthropogenic sediment sources in the watersheds in the project area that may cause or contribute to sediment delivery and stream impairment, and to include activities in the project to correct as many of these conditions and sources as possible.

Blading of unpaved roads in a manner that contributes to road erosion and sediment transport to streams and wetlands should be avoided. It is important that management direction assures that road maintenance (e.g., blading) be focused on reducing road surface erosion and sediment delivery from roads to area streams. Practices of expediently sidecasting graded material over the shoulder and widening shoulders and snow plowing can have adverse effects upon streams, wetlands, and riparian areas that are adjacent to roads. Road use during spring breakup conditions should also be avoided. Snow plowing of roads later in winter for log haul should also be avoided to limit runoff created road ruts during late winter thaws that increase road erosion (i.e., ruts channel road runoff along roads).

Forest Service Region 1 provides training for operators of road graders regarding conduct of road maintenance in a manner that protects streams and wetlands, (i.e., Gravel Roads Back to the Basics). If there are road maintenance needs on unpaved roads adjacent to streams and wetlands we encourage utilization of such training (contact Donna Sheehy, FS R1 Transportation Management Engineer, at 406-329-3312).

We also note that there are training videos available from the Forest Service San Dimas Technology and Development Center for use by the Forest Service and its contractors (e.g., "Forest Roads and the Environment"-an overview of how maintenance can affect watershed condition and fish habitat; "Reading the Traveled Way"-how road conditions create problems and how to identify effective treatments; "Reading Beyond the Traveled Way"-explains considerations of roads vs. natural landscape functions and how to design maintenance to minimize road impacts; "Smoothing and Reshaping the Traveled Way"-step by step process for smoothing and reshaping a road while maintaining crowns and other road slopes; and "Maintaining the Ditch and Surface Cross Drains"-instructions for constructing and maintaining ditches, culverts and surface cross drains).

12. The DEIS states that the channel types in West Fisher Creek, Miller Creek, Silver Butte Creek and the main stem of the Fisher River have a moderate to very high sensitivity to increases in stream flows, but that it is not expected that the cumulative peak flow increases in any of the drainages will cause a change in the existing stream channel stability (page 3-111). However, Table 3-31 (page 3-113) shows an estimated 15.9%

water yield increase in the Miller Creek drainage under Alternative 2, which is much higher than the estimated water yield increases for West Fisher Creek, Silver Butte Creek and the Fisher River. It is stated that the majority of the channel types in Miller Creek are very sensitive to increases in peak flow levels. The projected water yield increase in Miller Creek will be over the Forest Plan allowable water yield increase of 15%, and the DEIS states that water yield increases in this range would degrade the WQLS listed segment of the Fisher River (page 3-114). Miller Creek has a pure westslope cutthroat trout population.

Additional degradation of a 303(d) listed/water quality impaired stream is inconsistent with EPA's policy that proposed activities in the drainages of 303(d) listed streams should not cause further degradation of water quality, and should promote and be consistent with water quality restoration. The DEIS indicates that if certain harvest units were dropped from Alternative 2 the projected water yield increase could be kept within the Forest Plan standards for water yield increases (i.e., dropping Units 34, 38, 39, 44, 49, 51, 52, 58). We believe such units should be dropped in Alternative 2 to ensure that water yield increases will not cause degradation of Miller Creek.

We are pleased that the DEIS acknowledges that Alternative 2 is inconsistent with Forest Plan standards for protection of streams and water quality (page 3-120), and is not recommended as the preferred alternative.

We also note that the projected water yield increases in the Miller Creek drainage are still relatively high with Alternatives 4, 6, and 7 (i.e., water yield increase of 12.7% with Alternatives 4 and 7, and 13.9% with Alternative 6). The DEIS states that these water yield increases are below the Forest Plan standards, and it is expected that they would not result in degraded conditions (page 3-117, 3-119). We still have some concerns regarding the projected Miller Creek water yield increases in Alternatives 4, 6, and 7, since they are not too far below the Forest Plan standard of 15%, and it is stated the majority of the channel types in Miller Creek are very sensitive to increases in peak flow levels.

Is it known if the "one size fits all" 15% Forest Plan standard for water yield increases provides adequate protection in channel types like Miller Creek that are very sensitive to increases in peak flows? Should some of the Miller Creek harvest units be dropped from Alternative 6 to provide a wider margin of safety for protection of Miller Creek, since it is very sensitive to increases in peak flows (e.g., dropping units 38, 39, 44, 49 and/or 52)? We believe the potential for degradation of Miller Creek with water yield increases of 13.9% with the preferred alternative should be further evaluated and described in the FEIS.

13. Thank you for presenting an evaluation of fisheries habitat in project area watersheds (pages 3-155 to 3-165). This evaluation shows 15 habitat indicators to be functioning-at-risk, 1 functioning-at-unacceptable-risk, and 3 functioning, with pool quality the habitat

indicator functioning-at-unacceptable-risk (page 3-158). This lends support to the need to implement the Miller Creek pool creation elements of the proposed project that are included in Alternative 4, 6, and 7. We fully support this activity to improve pool habitat.

14. We are pleased that monitoring will be done on the mainstem Fisher River in conjunction with Plum Creek Timber Company for the development of a TMDL for the Fisher Basin, including daily stream flow and Total Suspended Sediment (TSS) data collection at four locations on the main stem of the Fisher River (page 3-120). Stream flow monitoring and TSS data collection will continue and the stream geomorphology attributes will be resurveyed every 3 to 5 years, and that stream core fines at 3 sites and macroinvertebrates at 3 sites is also conducted. This monitoring will help evaluate project impacts and determine trends in both the project watersheds and the main stem of the Fisher River.

We note that the Monitoring Plan included in Appendix 9 does not appear to show this Fisher River monitoring. Since we believe that monitoring in the mainstem Fisher River can serve a purpose in evaluating the Miller West Fisher project, we suggest that it be noted in the project Monitoring Plan. Perhaps there may be PACFISH/INFISH Biological Opinion (PIBO) monitoring sites in the project area that could also be used to help evaluate actual project effects

(<http://www.fs.fed.us/biology/fishecology/emp/index.html>). We also encourage consideration of adding a channel geometry monitoring element to better detect potential channel impacts from peak flows (perhaps on Miller Creek). We believe the Monitoring Plan should include an element on water quality and/or BMP effectiveness monitoring.

Examples of potential aquatic monitoring parameters that we often recommend for consideration are: channel cross-sections, bank stability, width/depth ratios, riffle stability index, pools, large woody debris, fine sediment, pebble counts, macroinvertebrates, etc.. The EPA especially recommends biological monitoring, since monitoring of the aquatic biological community integrates the effects of pollutant stressors over time and, thus, provides a more holistic measure of impacts than grab samples.

Monitoring is an integral part of land management. The EPA fully supports monitoring and adaptive management programs whereby effects of implementation activities are determined through monitoring (i.e., ecological and environmental effects). It is through the iterative process of setting goals and objectives, planning and carrying out projects, monitoring impacts of projects, and feeding back monitoring results to managers so they can make needed adjustments, that adaptive management works. In situations where impacts are uncertain, monitoring programs allow identification of actual impacts, so that adverse impacts may be appropriately mitigated.

We believe that water quality/aquatics monitoring is a necessary and crucial element in identifying and understanding the consequences of one's actions, and for determining effectiveness in BMPs in protecting water quality. The achievement of water quality standards for non-point source activities occurs through the implementation of BMPs.

Although BMPs are designed to protect water quality, they need to be monitored to verify their effectiveness. If found ineffective, BMPs need to be revised, and impacts mitigated. We encourage adequate monitoring budgets for conduct of aquatic monitoring to document BMP effectiveness and long-term water quality improvements associated with road BMP work and road decommissioning.

Wetlands

15. EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands and riparian areas increase landscape and species diversity, and are critical to the protection of designated water uses. Executive Order 11990 requires that all Federal Agencies protect wetlands. In addition national wetlands policy has established an interim goal of **No Overall Net Loss of the Nation's remaining wetlands**, and a long-term goal of increasing quantity and quality of the Nation's wetlands resource base. (see "Presidential Wetland Policy of 1993" at website, <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/aug93wet.htm>). Wetland impacts should be avoided, and then minimized, to the maximum extent practicable, and then unavoidable impacts should be compensated for through wetland restoration, creation, or enhancement.

Riparian Habitat Conservation Areas (RHCA) are an important management element in the Interior Columbia Basin (ICB) Strategy to maintain and restore the health of watersheds, riparian, and aquatic resources to sustain aquatic and terrestrial species and provide water of sufficient quality and quantity to support beneficial uses (see <http://www.icbemp.gov/html/icbstrat.pdf>; and "A Framework for Incorporating the Aquatic and Riparian Habitat Component of the Interior Columbia Basin Strategy into BLM and Forest Service Plan Revisions," <http://www.icbemp.gov/html/aqripfrm7804.pdf>). It is important that proposed activities be consistent with the riparian management objectives described in the ICB Strategy, which include:

- * Achieve physical integrity of aquatic ecosystems;
- * Provide an amount and distribution of woody debris sufficient to sustain physical and biological complexity;
- * Provide adequate summer and winter thermal regulation;
- * Provide appropriate amounts and distributions of source habitats for riparian- or wetland-dependent species; and
- * Restore or maintain water quality and hydrologic processes.
- * Restore or maintain naturally functioning riparian vegetation communities.

The DEIS states that there are numerous wetlands in the project watershed, but also states that there are no known wetlands in the proposed activity areas (page 3-98). We are pleased that Inland Native Fish Strategy (INFISH) riparian habitat conservation areas (RHCA) would be delineated around all streams and wetlands (page 3-94, Appendices 1,

4) to buffer timber harvest effects from riparian areas. It is important that wetlands are included as RHCAs, and that timber harvest, road construction, or operation of heavy equipment not be allowed in wetland areas. We recommend that harvest units be reviewed in the field to determine the presence of wetlands and identify wetlands on the Sale Area Map and be flagged on the ground so that timber contractors will be able to avoid them.

Soils

16. We thank you for identifying recommended mitigation and design features to maintain long term soil productivity and provide coarse woody debris; retain adequate snags; and monitor vegetation conditions (pages 3-89, 3-90; and for providing analysis and discussion regarding impacts to soils in the project area (pages 3-122- to 3-136). We are pleased that the DEIS states that coarse woody debris retention would allow maintenance of short and long-term soil productivity (page 3-127). We are also pleased that all alternatives will meet the Regional 15% detrimental soil disturbance standard with required mitigation.

The soils impacts analysis presents information on sensitive land types in the project area (Tables 3-34 to 3-36), including proposed treatment units in areas of sensitive soil types for Alternative 2 (i.e., land types 112 and 351, Table 3-36, page 3-125). A total of 252 acres of harvests on sensitive soil types are shown with Alternative 2. We did not, however, see similar summary information presented regarding harvests on sensitive soil types for Alternatives 4, 6, and 7. We believe the extent of proposed harvests and road construction on sensitive soils should be summarized and disclosed for all action alternatives to assist in understanding of effects from harvests and road work.

The DEIS acknowledges that harvest activities can greatly increase the likelihood of mass soil movements occurring, particularly along roads and on clearcuts in steep terrain. Increased surface erosion and mass soil movements associated with timber harvest areas can result in an increase of sediment inputs to streams (page 3-110). We are particularly interested in the amount of proposed summer tractor harvest acreage and road construction on sensitive land types 112 and 351. Harvests or road construction in areas of high risk of erosion or areas highly susceptible to mass failure should be clearly disclosed.

We generally recommend avoidance of timber harvest and road construction in areas with high risk of sediment production or erosion potential and areas highly susceptible to mass failure. Utilization of existing skid trails, obliteration (and we presume seeding) of skid trails, winter logging, coarse woody debris retention are noted among the required mitigations to meet soil standards (page 3-136). We encourage the Kootenai NF to review proposed measures to protect soils and reduce erosion to assure that all of the units with particularly sensitive soils or on landtypes with greater vulnerability or risk of detrimental soil disturbance such as erosion, compaction, and mass wasting include

adequate mitigation measures and/or less damaging harvest methods to avoid erosion and other detrimental soil impacts and/or higher levels of sediment production and transport.

We suggest consideration of additional measures during summer tractor logging to reduce erosion, infiltration, and restore soils. Such measures may include placing restrictions on skidding with tracked machinery in sensitive areas, using slash mats to protect soils, constructing water bars, creating brush sediment traps, adding slash to skid trail surfaces after recontouring and ripping, seeding/planting of forbs, grasses or shrubs to reduce soil erosion and hasten recovery, as well as recontouring, slashing and seeding of temporary roads and log landing areas following use.

17. Soil monitoring activities on the Kootenai National Forest are discussed in general terms on page 3-136, but the amount of soil monitoring that is proposed to identify and evaluate impacts to soils from ground based harvests is not clear to us. We don't see any soil monitoring proposed in the Monitoring Plan in Appendix 9. Will adequate field monitoring and analysis be carried out to assure that the Region 1 soil quality thresholds are not exceeded, especially monitoring of activities on land types 112 and 351? We recommend that the amount of site specific soil monitoring that is proposed to identify soil impacts and validate consistency with the Regional soil disturbance standard be more clearly identified in the FEIS.

Air Quality

18. The action alternatives include a significant amount of prescribed burning (i.e., 3,302 acres of burning in Alternatives 4 and 7; 3,816 acres in Alternative 6; and 4,794 acres in Alternative 2, Table 3-19, page 3-64). The EPA supports judicious and well planned use of prescribed fire to reduce hazardous fuels and restore fire to forest ecosystems. The DEIS includes a good analysis and discussion of project air quality conditions and effects from proposed burning activities (page 3-194 to 3-206). We particularly appreciate the identification of mitigation measures to reduce burning emissions, and the inclusion of Table 3-60 (Fuels Treatments by Alternative), Table 3-61 (% Probability of Air Pollutants from project Area Impacting an Area of Concern) and Table 3-62 (Standard Visual Range), which improve understanding of potential air quality impacts .

We are pleased that prescribed burning will be done in compliance with requirements of the Montana/Idaho Airshed Group Smoke Management Plan (page 3-198). It may be of interest to the public to display the website for the Montana/Idaho State Airshed Group, <http://www.smokemu.org> . Prescribed burning done in accordance with a certified State Smoke Management Plan such as the Montana/Idaho Airshed Group is consistent with EPA's *Interim Air Quality Policy on Wildland and Prescribed Fire*. This is Federal policy which reconciles the competing needs to conduct prescribed fires to manage vegetation and restore fire to fire adapted ecosystems while at the same time maintaining clean air to protect public health. A copy of the *Interim Air Quality Policy* can be found at: <http://www.epa.gov/ttn/oarpg/t1/memoranda/firefnl.pdf> . EPA air quality guidance can be found at <http://www.epa.gov/air/caa/> .

It is important to disclose that even though prescribed burns will be scheduled during periods of favorable meteorological conditions for smoke dispersal, the weather can change causing smoke not to disperse as intended. This can be especially problematic for smoldering pile burns when a period of poor ventilation follows a good ventilation day. Also, if there is potential for smoke to drift into populated areas there should be public notification prior to burns so sensitive people (e.g., people suffering from respiratory illnesses such as asthma or emphysema, or heart problems) can plan accordingly.

Noxious Weeds

19. Weeds are a great threat to biodiversity and can often out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife. We are pleased that the DEIS provides analysis and discussion of noxious weed issues (pages 3-26- to 3-292), including weed control and mitigation measures (pages 3-278, 3-291, 3-292). We encourage tracking of weed infestations, control actions, and effectiveness of control actions in a Forest-level weed database. Weed prevention is the most cost-effective way to manage and control weeds by avoiding new infestations and spread of weeds, and thus, avoiding the need for subsequent weed treatments.
20. While we support use of weed control chemicals where needed, we encourage prioritization of management techniques that focus on non-chemical treatments first, with reliance on chemicals being the last resort, since weed control chemicals can be toxic and have the potential to be transported to surface or ground water following application. The Montana Water Quality Standards include a general narrative standard requiring surface waters to *be free from substances that create concentrations which are toxic or harmful to aquatic life*. Herbicide drift into streams and wetlands could adversely affect aquatic life and wetland functions such as food chain support and habitat for wetland species.

EPA recommends that no herbicide spraying occur in streams and wetlands or other aquatic areas (seeps, springs, etc.). Herbicides should be applied at the lowest rate effective in meeting weed control objectives and according to guidelines for protecting public health and the environment. Please also note that there may be additional pesticide use limitations that set forth geographically specific requirements for the protection of endangered or threatened species and their designated critical habitat. This information can be found at <http://www.epa.gov/espp/bulletins.htm>.

We suggest that mitigation measures be used to reduce potential water quality and fisheries effects during herbicide spraying such as: 1) applicators apply herbicides according to the label; 2) streams and wetlands in any area to be sprayed be identified and flagged on the ground to assure that herbicide applicators are aware of and can avoid spraying in or near streams and wetlands (we recommend use of 50 feet no spray buffer zones adjacent to streams and wetlands); 3) applicators should take precautions during

spraying (e.g., applying herbicide only after careful review of weather reports to ensure minimal likelihood of rainfall within 24 hours of spraying; 4) use treatment methods that target individual noxious weed plants in riparian and wetland areas (depending on the targeted weed species, manual control or hand pulling may be one of the best options for weed control within riparian/wetland areas or close to water); and 5) applicators should be certified and fully trained and equipped with appropriate personal protective equipment.

For your information, the website for EPA information regarding pesticides is <http://www.epa.gov/pesticides/>. The National Pesticide Telecommunication Network (NPTN) website at <http://nptn.orst.edu/tech.htm>, which operates under a cooperative agreement with EPA and Oregon State University, has information on toxicity, mobility, and environmental fate on pesticides which may be helpful (phone number 800-858-7378).

Wildlife/T&E Species

21. We are pleased that no timber harvest is proposed in designated old growth, and there would be no changes in the distribution and percentage of old growth under any action alternative (page 3-301). We support protection of old growth habitats and maintenance or restoration of native, late-seral overstory trees and forest composition and structure within ranges of historic natural variability. Old growth stands are ecologically diverse and provide good breeding and feeding habitat for many bird and animal species, which have a preference or dependence on old growth (e.g., barred owl, great gray owl, pileated woodpecker). Much old growth habitat has already been lost, and it is important that management direction prevent continued loss of old growth habitat and promote long-term sustainability of old growth stands, and restore where possible the geographic extent and connectivity of old growth.

We do want to state that we believe that underburning to reduce fuel loads and ladder fuels in old growth may be appropriate since it lessens the threat of stand removal by a wildfire and reduces competition with other vegetation to promote large diameter trees. We do not, therefore, oppose prescribed burning in old growth stands that reduce fuel loads and fire risk in such stands, and which may promote long-term protection and sustainability of old growth stands.

22. The DEIS states that proposed timber harvest and burning will reduce snags and cavity habitat in the project area (page 3-308). It also states that, "the primary excavator potential population level on NFS lands is estimated to drop from 83% to 80% after implementation of any of the action alternatives" (page 3-310). It is not clear to us what the term "excavator potential population level" means. We suggest that this term be explained in the FEIS.

The DEIS appears to indicate that the loss of cavity habitat with proposed timber harvests and prescribed burning is not considered critical, since all units would still maintain at least 40% snag levels, and it is stated that the Kootenai NF is providing sufficient cavity habitat at the drainage or compartment as well as Forest scale (pages 3-310, 3-311). It is also stated that the potential population index of a cavity habitat species such as the pileated woodpecker is not expected to change (page 3-332). We note, however, that it is also stated that no population data is available for pileated woodpeckers on the Kootenai NF (page 3-331).

It is not clear to us how the impact assessment for a cavity habitat species like the pileated woodpecker determines that no change in population will occur when it is predicted that cavity habitat will be reduced and population information on the species are not available. We recommend that the FEIS provide additional explanation as to why it is believed that populations of cavity habitat species such as the pileated woodpecker will not change even though there is likely loss of snag habitat and information on pileated woodpecker populations are not available.

23. Table 3-87 (page 3-319) shows that the preferred alternative includes slightly higher open road density levels than other action alternatives during the project. Alternative 6 is also shown as having the highest post-project total road density of 2.00 miles per square mile post-project. Alternative 6 includes the lowest security habitat of 53% during the project (Table 2-22). Also, the analysis of impacts on the threatened grizzly bear show that when all reasonable and foreseeable activities are considered the cumulative impacts from implementation of Alternative 6 results in a Bear Management Unit open road density that is above the maximum of 0.75 miles/square mile of open roads for BMU's during activity (Table 3-107). The DEIS reports that bears could be displaced due to human presence and project activities (page 3-386). It is stated that the preferred alternative and Alternatives 2 and 7 "may affect, but it not likely to adversely affect grizzly bears," while Alternative 4 "may affect, and is likely to adversely affect grizzly bears," (page 3-402).

While the increases in open road density and total road density with the preferred alternative relative to the other alternatives appear to be small, they are nevertheless increases in open road and total road density. We encourage reduction of open road density and total road density as much as possible rather than increasing road density to both improve watershed conditions and wildlife security and connectivity. We encourage the Kootenai NF to consider making revisions to the preferred alternative to reduce open road and total road density rather than increasing road density.

24. The DEIS indicates that all action alternatives "may affect, and are likely to adversely affect" the threatened Canada lynx based on not meeting Northern Rockies Lynx Management Direction Standard VEG 6 (page 3-417). Standard VEG 6 will not be met in LAU 14502 and 14503 (page 3-412). The DEIS also states that the project is consistent with Forest Plan direction on T&E species relative to the lynx, and is consistent with the Endangered Species Act (page 3-417). It may be helpful to public

understand to explain to what extent Northern Rockies Lynx Management Direction Standards may not be met for a project, but the project may still be considered to be consistent with Forest Plan direction and ESA.

If it is determined that the finally selected project alternative could adversely affect any threatened or endangered species (e.g., grizzly bear, lynx) the final EIS should include the associated U.S. Fish & Wildlife Service (USFWS) Biological Opinion or formal concurrence for the following reasons:

- (a) NEPA requires public involvement and full disclosure of all issues upon which a decision is to be made;
- (b) The CEQ Regulations for Implementing the Procedural Provisions of NEPA strongly encourage the integration of NEPA requirements with other environmental review and consultation requirements so that all such procedures run concurrently rather than consecutively (40 CFR 1500.2(c) and 1502.25); and
- (c) The Endangered Species Act (ESA) consultation process can result in the identification of reasonable and prudent alternatives to preclude jeopardy, and mandated reasonable and prudent measures to reduce incidental take. These can affect project implementation.

Since the Biological Assessment and EIS must evaluate the potential impacts on listed species, they can jointly assist in analyzing the effectiveness of alternatives and mitigation measures. EPA recommends that the final EIS and Record of Decision not be completed prior to the completion of ESA consultation. If the consultation process is treated as a separate process, the Agencies risk USFWS identification of additional significant impacts, new mitigation measures, or changes to the preferred alternative.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

